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Bureau of Animal Industry

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REPORT ON DEVELOPMENTS IN THE CAMPAIGN AGAINST FOOT-AND-MOUTH DISEASE IN MEXICO

No. 17

NOTE: This report has been prepared on the basis of the best information available at the time of compilation but is subject to later revision. It covers the principal developments in the campaign since the issuance of the 16th report of the series, on October 20, 1948.

Eradication Operations in Jalisco

Late in October and through November, six centers of acute foot-and-mouth disease infection were detected in the State of Jalisco. They involved somewhat over 600 animals in several municipalities. The eradication forces established quarantines and began slaughter and burial operations as rapidly as possible. Indemnities were paid for animals destroyed. The areas involved are being kept under close observation to insure the complete eradication of the infection. Susceptible animals in surrounding areas are being vaccinated and repeated inspections are being made. Because of the nearness of one of the centers of infection to the northern quarantine line, a section of this line about 60 miles long was moved northward an average of about 8 miles.

Vaccine Production Ahead of Schedule

During October the Commission's laboratories produced 1,060,000 doses of foot-and-mouth disease vaccine, thus attaining a month ahead of schedule a goal that had previously been set for November. The August output had been 354,000 and the September 630,000 doses. As a result of increased facilities and systematizing of the work, the output of vaccine has continued to increase still more, reaching a total of 1,350,000 doses for the month of November.

Reports from field supervisors show that, during the 4-week period October 2-30, vaccine was applied to 432,733 animals. This rate is more than 100,000 a week, which is much greater than previously. During the month of November, 674,198 animals were vaccinated.

Extensive Disinfection Operations

At the end of October the number of disinfection stations for the protection of the northern and southern quarantine lines in Mexico slightly exceeded 150. Disinfection operations, made possible through these facilities, extend to motor vehicles, railroad cars, cargo and passenger planes, and boats and barges. The total number of such carriers disinfected monthly is approximately 25,000.

Meanwhile field crews of the Commission engage, also, in the cleaning and disinfection of premises involved in disease-eradication work. Another activity, precautionary in character, is the sanitary supervision of Mexican laborers, known as braceros, who seek employment in the United States. The number of such migratory workers coming under the Commission's supervision thus far has exceeded 20,000.

Commission Personnel Exceeds 3,000

Mainly as a result of increased field operations, of which the vast vaccination program is a dominant part, the personnel of the joint Commission increased by about 200 persons during October and continued to rise further during November. As of December 2 employees of the United States section numbered 580 and the Mexican section 217 persons. These groups consist mainly of veterinarians, livestock inspectors, technicians, the office staff, and other trained workers. In addition, the joint Commission had on its rolls 2,227 laborers and other unskilled workers, making a total of 3,024 persons. These numbers were augmented further by units of the Mexican Army assigned to quarantine enforcement and protective duties.

Excerpts from Address by Commission Director

On October 12, Lic. Oscar Flores, Director of the joint Mexican-United States Commission, addressed the convention of the U. S. Livestock Sanitary Association in Denver. Gen. Harry H. Johnson, Special Assistant to the Secretary of Agriculture and Co-director of the Commission, was also in attendance and addressed the convention.

Since Mr. Flores is the logical spokesman for the Mexican section of the Commission, his remarks on various aspects of the foot-and-mouth disease campaign were of interest to many persons whose information had previously been mainly from United States sources. Following is a brief summary of statements made by Mr. Flores concerning operations in Mexico:

The disease has not gone beyond the originally set quarantine lines. Its advance has been stopped and the quarantined zone has been reduced on three occasions.

The distance between the infected area and the northern (Mexican-United States) border has been increased from approximately 248.5 miles to 372.2 miles.

At the end of the present year the production of foot-and-mouth disease vaccine in laboratories of the Commission is expected to reach 1,500,000 doses monthly. Vaccine production in Mexico already exceeds that of South America and when the output of 1,500,000 doses monthly is reached it will be the largest in the world.

For the purpose of the vaccination program in Mexico, the Commission has considered the infected zone as though it were one large ranch and plans to vaccinate about 1,500,000 head of livestock a month.

To facilitate the work, the infected zone has been divided into nine districts.

The number of animals to be vaccinated in the infected zone has been calculated approximately as follows: Cattle, 6,031,208; small animals (sheep, goats, and swine), 8,751,324.

The vaccination program will go forward under the following working system: Informational activities to prepare the way, organization to arrange for assembling all animals for inspection and vaccination, prevaccination inspection, vaccination and tagging for identification, subsequent inspections of vaccinated animals at designated intervals.

Revaccination will follow every 6 months by brigades starting from the quarantine lines. Results are expected to be evident within 18 months. The address was accompanied with maps and charts.

Gen. Johnson's address supported Mr. Flores' presentation and stressed the fine work of the scientists and field workers engaged in the program and the close coordination of the Mexican and United States sections of the Commission.

More Meat Canning Plants in Northern Mexico

As mentioned in previous reports, the U. S. Department of Agriculture has been aiding a canned-meat program in northern Mexico. The purpose is to provide an outlet for cattle produced there that can no longer be exported to the United States because of the border quarantine. The Department's participation has consisted in technical services and in the purchase of canned meat for resale, largely for European relief purposes.

At the end of October, nine plants in northern Mexico were canning meat. Six of these had been in operation prior to June 30, 1948. The other three began operations in late September and October. Besides the nine already in operation, three more are under construction and are expected to be in operation by January 1, 1949. Existing contracts call for the delivery of 133 million pounds of canned meat during the year ending June 30, 1949.

Border Quarantine Enforcement

Enforcement of the quarantine on the United States-Mexican border continues to consist in a wide range of duties performed largely by range riders and bridge guards. The number of Bureau of Animal Industry employees assigned to these duties in recent months has been about 600.

Numbers of cattle and other animals destroyed because of crossing the border from Mexico has varied considerably with the amount of rainfall in northern Mexico and the depth of the Rio Grande River. During periods of normal or heavy rainfall in northern Mexico, the local supply of water is sufficiently plentiful

for Mexican livestock and there is little tendency for animals to seek the water of the Rio Grande and to proceed across. On the other hand, during times of drought, border crossings have been more common.

During October, which was a fairly normal month, the principal operations reported in border-quarantine enforcement were briefly as follows: Animals destroyed, 54; vehicles disinfected, about 43,200; meat and other prohibited products seized and destroyed, about 5,000 pounds. Reports for November show that it was necessary to destroy only 19 animals for illegal entry into the United States from Mexico.

Numerous truckloads of hay, straw, and fertilizer originating in Mexico were denied entry and miscellaneous articles such as greenhides, bones, and barbed darts used in bullfights were seized and destroyed.

Effects of Foot-and-Mouth Disease on Mexican Dairy Herd

Deaths of animals, reduced milk yields, and other damaging effects of foot-and-mouth disease in a Mexican dairy herd are described in a report received by the U. S. Department of Agriculture from Gen. Harry H. Johnson, Special Assistant to the Secretary of Agriculture and Co-director of the campaign to eradicate this plague from Mexico. The report is based partly on inspections of the herd by United States and Mexican veterinarians and partly on accounts of the damage reported by the herd's owner. Heretofore, authentic reports of the course of foot-and-mouth disease under conditions in North America have been rare since, in areas where inspectors are stationed, affected herds have usually been destroyed. The herd described by the report, however, is in a part of the infected area in Mexico where extensive eradication operations have not yet been conducted.

The disease was observed in this dairy herd about the middle of December 1946. This was slightly before the outbreak in Mexico had been officially diagnosed. The abnormalities first noted by the owner were loss of appetite and sudden drop in milk production. A few days later blisters and erosions were discovered on the cows' udders and teats. Their mouths became sore and drooling began. Learning of the reported presence of foot-and-mouth disease elsewhere in Mexico, the owner suspected that this was the trouble with his herd and he promptly notified veterinary authorities. Two Mexican veterinarians confirmed the owner's suspicion that the infection was foot-and-mouth disease.

The herd comprised about 270 Holstein and 150 Jersey cattle together with some 50 calves. All producing animals soon became affected and 40 of them developed blisters on the feet. The hoofs of several later sloughed off. There was no difference in the severity of the disease in the two breeds. Mastitis, which previously had been no problem in the herd, appeared and almost all the cows lost from one to three quarters of their udders. The herd's normal production dropped about 60 percent. Some cows gave only a quart or two of milk a day and a few gave none at all.

Shortly after symptoms appeared two affected cows suddenly dropped dead and 14 others, unable to stand or eat, died a few days later. Approximately 36 calves under 4 months of age died suddenly without showing any symptoms. The remainder of the calves were sold. During the attack, 12 cows aborted and others calved with difficulty. About 30 adult animals developed heart abnormalities as indicated by rapid and shallow respiration aggravated by any exertion. After about 3 months the disease appeared to have run its main course. However, the herd's milk production is still below normal in spite of

replacements of the most seriously affected cows by fresh heifers. An increase in mastitis, unthriftiness and failure to come into production has made it necessary to cull the herd continuously.

Near the beginning of the outbreak the owner felt that the severity of the disease was greatly overestimated. He now feels that he would have been better off if he had sacrificed the herd and begun anew. The continued losses, over a long period, from the aftereffects of the disease have been many times greater than those that occurred soon after its onset.